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ABSTRACT

Fourteen university instructors of Internet-based courses were interviewed and their course syllabi examined to produce instructor profiles of philosophical orientations and instructional strategies. How the instructors' belief systems regarding the effective teaching of adults changed as a result of teaching online was examined. The Philosophical Orientations of Adult Educators Inventory (PAEI) was used to assess: (1) philosophical orientations that guide course design and delivery held by faculty; (2) how these orientations were manifested in syllabi; and (3) instructor satisfaction with student retention, participation, and learning. The following was found:(1) participants had no awareness of a cohesive set of guiding principles and beliefs as they learned to teach online; (2) participants had a paradoxical relationship with the online course designers; (3) participants had a high level of satisfaction with the process and outcomes of the online experience; (4) participants thought deeply about their teaching beliefs as they taught online; (5) participants made qualitative and structural changes in their face-to-face classroom teaching as a result of learning to teach online; (6) participants believed their online students acquired learning to learn skills applicable to face-to-face classroom situations; and (7) participants had not changed their teaching and learning values and beliefs even though online teaching caused them to alter habitual instructional practices. The results provide opportunity for new theory development, particularly in the area of reflection on practice and learning to learn. (The bibliography lists 15 references). (AJ)

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Screen to Screen: A Study of Designer/Instructor Beliefs and Actions in Internet-based Courses

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Abstract: This study explored the belief systems underlying Internet-based courses faculty chose to develop and deliver, and how these belief systems influenced the process. With a sample drawn from faculty of a university recognized as a leader in distance learning, this study examined course syllabi, results from designer/instructor philosophy inventories, and faculty interviews to produce instructor profiles of philosophical orientation and instructional strategies. It then explored how the instructor/designer's belief systems regarding the effective teaching of adults changed as a result of teaching online.

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Purpose of the Study

The assumption of the researchers is that the beliefs held by designer/instructors fundamentally impact the shape and quality of their work. However, in practice the effective design and delivery of online instruction requires a supporting cast of instructional and information technologists. Faculty who teach online courses are confronted with unfamiliar role-negotiation tasks resulting from dependency on the knowledge, expertise, and even hands-on assistance of others who may be miles and time zones away from themselves and their students. That comforting solid click of the latch on the classroom door at the start of class, reaffirming the autonomy and sanctity of the teacher/student relationship, has been replaced by a persistent hum of anxiety over a wide range of technological and human error issues. The purpose of this study was to look closely at a set of instructors teaching online, within an institution recognized as an exemplary provider of online programs by the regional accrediting authority, with the goal of better understanding the complex interdependencies between teaching and technology.

Relevant Literature and Theoretical Framework

The rapid growth of Internet-based courses appears to be proceeding without a theoretical foundation derived from research on courses specifically designed for Internet delivery. Given the relative newness of Internet-based education, theoretical perspectives of technology-based instructional design seem particularly appropriate for guiding the instructional design process, predicting student needs and satisfaction, and assessing the quality of online teaching and learning. In reality, design is frequently influenced by the designer's personal experience and preferences, demands of the technology, and any number of pragmatic concerns (Bednar, et al., 1995). Faculty development tends to focus on *what works* in an electronically-mediated context as opposed to coaching designer/instructors in instructional strategies rooted in a belief system about teaching and learning (Hannafin, Hannafin, Land, & Oliver, 1997).

But isn't constructivist learning theory guiding instructional design? Not according to some scholars and practitioners active along this new frontier (Hannafin, et al. 1997; Webb, 2000). Constructivist learning theory holds that "learners actively construct and reconstruct knowledge out of their experiences in the world" (Kafai & Resnik, 1996, p.3). Lambert (1995), referred to constructivism as the epistemological

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processes of knowing and coming to know (p. 17). The crucial element is that the learner actively creates a knowledge base through linkages and experiences. According to Hannafin, et al., "The design task, therefore, is one of providing a rich context within which meaning can be negotiated and ways of understanding can emerge and evolve" (p.109).

Further complicating the picture are the issues of access often referred to as the "digital divide." Miller (2001) characterized the discourses on new instructional technologies as congregating in dichotomous perspectives, utopian and dystopian. Proponents of Internet delivery describe it as personally empowering to users through greater flexibility, choice, and control of the content and process of learning. Critics are concerned that expanding adoption "will serve to increase the gap between information-rich and -poor and to dehumanize education, putting learners at risk of being more easily controlled and manipulated (p. 188). The participants (faculty and students) of this study are clearly located in the information-rich category. Hence, even the most interactive, dynamic, and high impact online courses in this sample will inevitably be lacking in informed dialog across the digital divide.

Research Questions and Methodology

The Philosophical Orientations of Adult Educators Inventory© (PAEI©, Zinn, revised 1999), a validated instrument, was used to assess: *What are the philosophical orientations held by faculty that guide their design and delivery of Internet-based courses for adult students?* An individual faculty member's inventory results were compared to his/her syllabus to determine: *How are these orientations manifested in their syllabi?*

All the courses of the participating instructors' were available only to adult returning students although they were evenly divided between graduate and undergraduate. All but two of the courses were applied subject areas in business or healthcare. Exceptions were two required courses in philosophy and religion for degree completion programs that admit students with associates degrees in business and healthcare.

Instructional strategies were identified and coded by philosophical orientation according to the framework developed by Elias and Merriam (1995), which elaborates teaching methods and practices likely to be associated with a range of philosophical orientations. A semi-structured interview protocol was developed and administered to the 14 instructors who were located throughout the United States. This interview included reviewing the inventory and syllabus analysis results and investigating: *How satisfied are the instructors with the results as they relate to evidence of student retention, participation, and learning?*

This study employed a mixed-methods approach that included document analysis, instrumentation, and personal interviews. The researchers' purpose was exploratory and descriptive with clear intention to generate new understanding in relation to the complexities and processes of designing and delivering online courses. Transcriptions of the audiotaped interviews were entered into a qualitative data analysis program and coded using constant comparison for verifying both indigenous, and analytically imposed categories (from the PAEI©). Open and axial coding were completed through numerous iterations, alternating independent and collaborative sessions among the principle investigators. Analysis is ongoing and the findings reported here are confined to those areas where consensus has been reached.

Results and Discussion

The first research question assumes an implicit relationship between faculty philosophical orientations and their design and delivery of online courses. Although this relationship may exist, none of the participants, despite considerable probing, indicated *awareness* of a cohesive set of guiding principles and beliefs as they learned to teach online. Recently, Taylor, Dirkx, and Pratt (2001) asserted that:

> . . . over time teachers develop a kind of personal compass or gyroscope which helps them make decisions and reflect upon what works, what doesn't work and why that might be so. . . . Teachers who do not create a cohesive pedagogical system are often at the mercy of others, relying on institutional traditions and curricular directions to guide their approach to teaching. (p. 393).

Perhaps the fact that 10 of the 14 participating instructor's reported the Progressive Orientation as their primary orientation and 2 reported it as secondary, is nothing more that an interesting artifact of this small purposive sample. However, despite the consistency of preference for one belief system among the subjects as indicated by the PAEI© and, in many cases, a strong preference for this orientation over others, the subjects had little to say about its existence or its relationship to the design and delivery of online courses revealing, perhaps, the tacit nature of belief systems that guide practice.

Zinn (1999) stated that, "Essential elements of PROGRESSIVE (Zinn's emphasis) adult education philosophy include learner-centeredness, a commitment to teaching responsible citizenship, emphasizing real-life experience in the learning process, creating communities of learning, and encouraging active inquiry and interactive learning"(p.29). The applied nature of most of the online courses designed and delivered by the study participants seemed consistent with Zinn's description of the progressive orientation. However, prior to the interviews, the researchers spent considerable time talking with the instructional designers who support these instructors, as well as navigating the online faculty development course in designing and delivering online courses required of all new online faculty. All but two of the participants in this study had taken this course and the exceptions were very early adopters who participated in the design of the required faculty development course. These conversations revealed that the faculty development emphasis is on the pragmatic issues, consistent with the findings of Bednar, et al., 1995 and Hannafin, et al., 1997 noted earlier.

Initial assumptions underlying the formulation of the second research question included an expectation that an instructor would reveal a cohesive belief system or philosophical orientation in online syllabi, possibly to a greater degree than in one designed for a face-to-face course. Not unlike the traditional format, online syllabi serve as an advance organizer of the content and process that unfolds throughout a course. Not surprisingly, from an administrative point of view, consistency among syllabi in appearance, and to some extent process, moderates the substantial learning curve for students selecting online sections. Throughout the faculty development course for new online instructors, best practices and "what works" strategies are emphasized. As a result, the study participants reported a somewhat paradoxical relationship with the online instructional designers who supported them in this new endeavor. Among the responses were, "I understand the need for consistency but I need to find ways to let my personality shine through." In a stronger statement, one instructor joked, " CID (Center for Instructional Delivery) folks probably have a contract out on me because I don't always follow their advice." Clearly, faculty who choose to teach online face the reconciliation of conformity

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with their personal belief systems regarding effective instruction. Alternatively, all study participants expressed gratitude for the considerable support provide by CID and noted that in the absence of that support and guidance, they not only could not have accomplished a successful course but they would not have attempted it.

With regard to the third research question, the thematic analysis completed to date is highly consistent with that of Conceicaso-Runlee (2001) in that these instructors, and the students enrolled in their online courses, were highly satisfied with the experience in terms of both process and outcomes. Further, even though the time commitment for students and faculty was substantial (reported in some cases to be double or triple that required for a face-to-face course), a spirit of exploration and adventure prevailed. One response, echoed by many, was, "Yes, I found myself online sometimes four-to-five times a day, seven days a week, but I really couldn't stay away because something new was happening all the time."

The time commitment for both designing and teaching online proved to be a super ordinate theme with which all other aspects of the experience were measured. For example, the study participants (all with at least ten years of teaching experience in higher education) consistently reported that nothing had ever made them think as hard or as deeply about their practice as learning to teach online. Further, transferring "lessons learned" and insights from the online section to the face-to-face classroom was a frequent occurrence. These instructors added definition and structure to vaguely specified assignments, designed innovative ways to engage students in discussions and web searches, and gained new appreciation for the delicate nature of online humor. Teaching practices long ago reduced to routines felt completely unfamiliar online. In several cases, closed book testing raised troubling issues of cheating for some who then reconciled their discomfort through redesigning the vehicles through which students demonstrate learning outcomes *both* online and face-to-face.

Qualitative and structural changes in well-honed teaching practices emerged from the online experience. As one participant explained, "At first (first few times teaching online) I went around with this semi-upset stomach. There was this pressure to be online every minute and I knew that was totally unrealistic but I couldn't get rid of the feeling. I talked it over with the CID. I found out the time thing is huge for everybody but after I talked it over, I began to think that maybe it wasn't just about time. I just couldn't stop thinking about all of this because it was so different, I was different." In the online setting, where long established strategies may not work, these instructors tended to reflect on their practice and engage in dialog with others – perhaps out of pain and discomfort more than anything else. Surprisingly, learning to teach online may be one of the few examples available in current adult education practice that affords the opportunity for Schon's, *reflection-on-action* (1983, 1987). The alteration of time and space, the removal of the disciplinary elements of the traditional classroom, and the information technology automation of instruction create a teaching/learning context that is not easily navigated using familiar routines and practices. According to Schon (1987), when practitioners find themselves in settings that are not comprehensible within their tacit thought models, they tend to reflect on practice. Another instructor reported, "Teaching online made me feel like I didn't know ***anything*** (authors' emphasis based on audiotape). But, I've been doing this for years. It was very disturbing at first." Returning to Schon, reflecting is related to constructing the epistemology of practice; in essence asking oneself, What do I know? Clearly, learning to teach online presented a "disorienting dilemma" (Mezirow, 1991) to some instructors but the interviews did not reveal change taking place beyond the instrumental level. Interview questions

different from those posed in this study would be important in discerning the role of critical reflection and transformation.

Perhaps the most startling finding to date is the belief expressed by two-thirds of the faculty respondents that students who have participated in an online course appear to transfer some newly acquired "learning to learn" skills to subsequent face-to-face courses. Clearly some crossover occurs but, having only interviewed faculty and not students, it is premature to assign transference primarily to students. Finally, faculty were in complete agreement that teaching online has altered their instructional practices in both face-to-face and virtual classrooms, but that their values and beliefs underlying teaching and learning have not changed. As one instructor noted, "The technical requirements of online course design and delivery pose challenges and obstacles I never even imagined and I've never worked so hard at precision in my purpose and method. But, it's still me in the classroom – students figure who I am and what I'm about faster online that in class – mostly because I am so consistent in my messages online."

Implications for Theory and Practice

Early findings from this study indicate that faculty change how they teach and that students may change how they learn as a result of online courses. These insights provide a rich opportunity for new theory development, particularly in the area of reflection on practice and learning to learn. The unique dependence upon technological and instructional design support positions faculty (and students) as objects of structures and systems beyond their control. Paradoxically, the online experience appears to provide faculty an opportunity to break out of familiar routines and become more intentional in the teaching/learning interaction.

Numerous aspects of online course design and delivery have the potential for being oppressive, from the dependence on not-always-reliable institutional information systems to dependence on technical and instructional development support, and finally to the increasingly well documented increase in faculty time necessary for success. In the rush to join the online course marketplace, it appears that faculty contribute the "sweat equity" and, in doing so, absorb the personal and institutional costs of this innovation. Given the newness of online teaching, it is too early to tell if these human and material costs will be spread across institutional units and budgets by making adjustments in enrollment caps, faculty loads, and support mechanisms and personnel to compensate for the significant demands of designing and delivering online courses.

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